

REMARKS

Claims 1-88 are pending and under consideration.

Claims 1-3, 8-13, 15-20, 22-26, 28-33, 35-49, 51-55, 58-62, 64-78, 80-84 and 86-88 are rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,046,981 to Ramamurthy et al. in view of U.S. Patent No. 6,167,445 to Gai et al.

The Examiner does not include claims 4-6 in the rejection. However, claims 4-6 are specifically mentioned on pages 3 and 4 of the Office Action. The Examiner is requested to clarify the status of these claims. In addition, claim 7, 14, 21, 27, 34, 50, 56, 57, 63, 79 and 85 are not mentioned in the rejection. It is therefore presumed that the Examiner finds these claims to contain allowable subject matter. However, neither the text of the Office Action nor the Office Action Summary sheet are clear in this regard. If the claims do not contain allowable subject matter, the Examiner is requested to withdraw the finality of the Office Action.

In the previous Office Action, the Examiner rejected the claims based on Ramamurthy et al. Applicants amended the claims to clarify that the various parameters are adjusted by a switch operator. The Examiner now admits that Ramamurthy et al. does not disclose adjusting the various parameters by a switch operator. To address this deficiency, the Examiner cites Gai et al. As discussed below, Gai et al. does not compensate for the deficiency.

Gai et al. discloses both "templates" and "parameters." Gai et al. mentions that the templates and parameters may be adjusted by a network administrator. It appears that the Examiner has assumed that the templates of Gai et al. are synonymous with the parameters of Gai et al. That is, it appears that the Examiner is using both the discussion of templates and the discussion of parameters to address the Ramamurthy et al. deficiency regarding parameters. This is improper. The templates of Gai et al. are different from the parameters of Gai et al. It is believed that upon additional review of Gai et al., it will be clear that Gai et al. does not render obvious a switch operator adjusting the various parameters, as claimed.

Gai et al. describes that the network administrator may adjust traffic "templates" and "parameters" as follows:

As you will recall, in response to the previous office action, we amended the claims to clarify that the various parameters are adjusted by a switch operator. The Examiner admits that Ramamurthy et al. does not disclose this feature. To address the deficiency, the Examiner cites US Patent No. 6,167,445 to Gai et al. Gai et al. discloses that the network administrator may adjust traffic "templates" and "parameters":

It should be understood that other means of associating traffic types to users, applications and DS codepoints, besides traffic templates, may be employed. It should also be understood that network administrators may select different traffic templates or adjust their parameters for different times of day or for emergency situations. (Column 12, lines 19-24)

The network administrator may also define one or more lists of global parameters that are to be utilized throughout the QoS domain. (Column 12, lines 31-33)

Gai et al. defines "parameters" as follows:

For example, to the extent there are parameters associated with a particular queuing strategy available at a given intermediate device (e.g., queue length for tail drop and minimum, maximum and mark probability for RED), these parameters must be set device-by-device by the network administrator. (Column 5, lines 38-42)

An example of a global parameter list is a prioritized list of queue scheduling algorithms from first choice to last choice, such as WFQ, WRR and Priority Queuing (PQ). Other examples of global parameter lists include congestion algorithms (e.g., RED over tail dropping), enabling multi-link Point-to-Point Protocol (PPP) fragmentation, if available, and enabling Virtual Circuit (VC) merging, if available. (Column 12, lines 33-40)

Gai et al. defines "templates" as follows:

The high-level policies, which are generally device-independent, are selected by a network administrator and translated by one or more policy servers into a set of rules that can be applied by specific network devices. In particular, a network administrator first selects an overall traffic template for a given network domain and may assign various applications and/or users to the corresponding traffic types of the template. (Column 5, line 65-column 6, line 6)

First, the network administrator selects an overall traffic template that establishes the different traffic types that are to be supported within the respective QoS domain. In particular, the network administrator may select one of several available traffic templates. An exemplary traffic template may be the traffic type list established by the IEEE in the 802.1p standard, which defines the following traffic types: best effort, background, excellent effort, controlled load, video, voice and network control, as described above. Other traffic templates include a financial template, a manufacturing template and a university or education template.

FIG. 6 is a highly schematic representation of a financial template 610 for use by a network administrator in accordance with the present invention. As shown, the financial template 610 includes a first column 612 listing a plurality of available traffic types corresponding to the financial template 610. The available traffic types include best effort, background, CEO best effort, voice, business applications, stock exchange applications, 500 kb/s video conference, 2 Mb/s video conference and network control. A second column 614 identifies a particular differentiated service (DS) value corresponding to each traffic type. The DS codepoint establishes the overall treatment that is to be assigned to the

corresponding traffic type within the respective QoS domain 302. To fit within the first six bits of DS field 220, DS codepoints are in the range of 0-63. As described below, the DS codepoints may also be used by intermediate devices in loading the user_ priority and/or ToS fields 114, 202 with corresponding values during classification.

A third column 616 identifies the network users who may take advantage of the various traffic types. For example, the network administrator may decide that any network user may utilize the best effort, background, voice, 500 kb/s video, 2 Mb/s video and network control traffic types. However, only the chief executive officer (CEO) may take advantage of the CEO best effort traffic type and only network users from the marketing, administrative, executive, financial analysis and financial planning departments may utilize the business applications traffic type. Similarly, only network users from the financial analysis, financial planning and trading departments may use the stock exchange applications traffic type. A fourth column 618 identifies the application programs corresponding to each traffic type. (Column 11, lines 14-58).

Discussion / Argument

The “parameters” of Gai et al. relate to queue operations and/or algorithms. There is no correspondence between the parameters of Gai et al. and the parameters of the present invention or the variables used in the Ramamurthy et al. equations.

The “templates” of Gai et al. relate to different industry sectors and the treatment of data by people working within those sectors. The “templates” of Gai et al. are not parameters. Adjusting templates is not equivalent to adjusting parameters.

Even if there was direct correspondence between the parameters of Gai et al. and the parameters of the present invention, or the variables of Ramamurthy et al., no proper combination of Gai et al. and Ramamurthy et al. results in the present invention. The Examiner argues that, based on Gai et al., one of ordinary skill in the art would have been motivated “to modify the CAC function in Ramamurthy et al. to communicate with [the] network administrator to adaptively adjust the QoS parameters for selective situations.” This is not correct. As indicated by the title of Gai et al., the reference provides for “high-level” CAC manipulation. The parameters of the present invention are not “high-level” as Gai et al. intends. They relate to specific functions of the CAC process.

Perhaps combining Gai et al. with Ramamurthy et al. would cause Ramamurthy et al. to use the Gai et al. templates. However, combining Gai et al. with Ramamurthy et al. would not manipulate the equations of Ramamurthy et al. Ramamurthy et al. discloses a system of equations having many variables. Assume that Gai et al. disclosed it is useful for a network administrator to manipulate a selected parameter to achieve a desired result (it does not). Gai et al. teaches that a “high level” manipulation is performed. “High level” does not mean that the

switch operator must manipulate all variables. It is respectfully submitted that the Examiner is randomly picking selected parameters of Ramamurthy et al. for manipulation. It is further submitted that the Examiner has not even identified which parameters of Ramamurthy et al. would be adjusted by the operator. It is still further submitted that hindsight has been used to pick and choose a few unidentified selected variables of Ramamurthy et al. The case law is clear: hindsight and picking and choosing are improper.

For all of the above reasons, it is submitted that the obviousness rejection should be withdrawn. There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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